

Application Number 10/817,610
Responsive to the Final Office Action mailed April 24, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): An apparatus comprising:
a flow meter which determines a flow rate of a flow of pressurized fluid, wherein the flow meter is located in a flow path of the flow of the pressurized fluid;
a conduit which receives the pressurized fluid and conducts a first portion thereof to a device under test (DUT); and
a bleed orifice which removes a second portion of the pressurized fluid from the conduit at a selected removal rate, wherein the apparatus determines a leak rate for the DUT in relation to the determined flow rate and the selected removal rate.

Claim 2 (Original): The apparatus of claim 1, further comprising a regulator upstream of the flow meter which regulates the pressure of the pressurized fluid.

Claim 3 (Original): The apparatus of claim 2, wherein the regulator utilizes a variable orifice size to reduce flow oscillations in the pressurized fluid.

Claim 4 (Original): The apparatus of claim 1, further comprising an accumulator upstream of the flow meter, the accumulator comprising a chamber which accumulates a volume of the pressurized fluid.

Claim 5 (Original): The apparatus of claim 1, further comprising a valve coupled to the conduit and configured to respectively prevent and permit flow of the pressurized fluid to the DUT.

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Claim 6 (Original): The apparatus of claim 5, wherein the valve is placed at a distal end of the conduit proximate the DUT.

Claim 7 (Original): The apparatus of claim 5, wherein the selected removal rate for the bleed orifice is determined in relation to a flow rate measured by the flow meter while the valve is configured to prevent flow of the pressurized fluid to the DUT.

Claim 8 (Original): The apparatus of claim 1, wherein the flow meter is configured to determine flow rates over a selected range from a first lower value to a second higher value, wherein a specified leak rate of the DUT is at a level proximate the first lower value, and wherein the selected removal rate of the bleed orifice causes the determined flow rate of the flow meter to be a mid-range value between the first lower value and the second higher value.

Claim 9 (Original): The apparatus of claim 1, wherein the flow meter is characterized as a first flow meter, wherein the apparatus further comprises a second flow meter coupled to the conduit in parallel to the first flow meter, and wherein the apparatus further determines a leak rate for the DUT in relation to a determined flow rate from the second flow meter and the selected removal rate.

Claim 10 (Previously Presented): The apparatus of claim 1, further comprising a controller, wherein the controller determines the leak rate for the DUT and compares the determined leak rate for the DUT to a specified acceptable leak rate.

Claim 11 (Original): The apparatus of claim 10, wherein the specified acceptable leak rate corresponds to a value equal to or less than 0.5 standard cubic centimeters (sccm) at 1.0 inches of water (inH₂O).

Claim 12 (Original): The apparatus of claim 1, wherein the pressurized fluid comprises air.

Claim 13 (Canceled).

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Claim 14 (Currently Amended): A method, comprising:

measuring a flow rate of a flow of pressurized fluid with a flow meter located in a flow path of the flow of the pressurized fluid while providing a first portion of the pressurized fluid to a device under test (DUT) and diverting a second portion of the pressurized fluid away from the DUT at a selected removal rate; and

determining a leak rate for the DUT in relation to the measured flow rate and the selected removal rate.

Claim 15 (Original): The method of claim 14, comprising a prior step of measuring the selected removal rate by determining the flow rate of the pressurized fluid while preventing said first portion from reaching the DUT.

Claim 16 (Previously Presented): The method of claim 14, further comprising using a bleed orifice to divert the second portion of the pressurized fluid away from the DUT at the selected removal rate.

Claim 17 (Previously Presented): The method of claim 16, wherein the flow meter is configured to determine flow rates over a selected range from a first lower value to a second higher value, wherein a specified leak rate of the DUT is at a level proximate the first lower value, and wherein the selected removal rate of the bleed orifice causes the measured flow rate of the flow meter to be a mid-range value between the first lower value and the second higher value.

Claim 18 (Original): The method of claim 14, further comprising comparing the determined leak rate for the DUT to a specified acceptable leak rate.

Claim 19 (Original): The method of claim 18, wherein the specified acceptable leak rate of the comparing step corresponds to a value equal to or less than 0.5 standard cubic centimeters (scm) at 1.0 inches of water (inH₂O).

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Claim 20 (Original): The method of claim 14, further comprising establishing the flow of pressurized fluid using a regulator.

Claim 21 (Previously Presented): The method of claim 20, wherein the regulator of the establishing step utilizes a variable orifice size to reduce flow oscillations in the pressurized fluid.

Claim 22 (Original): The method of claim 14, wherein the pressurized fluid comprises air.

Claim 23 (Original): The method of claim 14, wherein the DUT comprises a data storage device housing.

Claim 24 (Canceled).

Claim 25 (New): An apparatus comprising:

- a flow meter which determines a flow rate of a flow of pressurized fluid;
- a conduit which receives the pressurized fluid and conducts a first portion thereof to a data storage device housing; and
- a bleed orifice which removes a second portion of the pressurized fluid from the conduit at a selected removal rate, wherein the apparatus determines a leak rate for the data storage device housing in relation to the determined flow rate and the selected removal rate.

Claim 26 (New): The apparatus of claim 25, wherein the flow meter is located in a flow path of the flow of the pressurized fluid.